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TITLE:

Quantification of Protein Signatures in Archived Human Prostate
Tissues Using Shotgun Proteomic Methods

PRINCIPAL INVESTIGATOR:

Michael Wright

CONTRACTING ORGANIZATION:

University of Iowa, Iowa City, IA 52242

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14. ABSTRACT Biomarkers that robustly predict the metastatic potential of localized CaP are sorely needed to effectively treat localized CaP patients that pose the greatest risk of developing significant CaP. Biomarkers specific to significant CaP are also necessary if more effective drugs are going to be developed that can target and cure patients afflicted by this deadly disease. Proteins represent some of the most powerful molecular biomarkers to human disease such as cancer. Therefore this proposal will implement state-of-the-art methods in biological mass spectrometry to identify protein biomarkers specific to non-significant and significant CaP. These new protein biomarkers may spur the development of molecular tests that robustly predict the metastatic potential of non-significant CaP. These tests would reduce the physical and mental burdens associated with the overtreatment of patients afflicted by localized CaP. Also, protein biomarkers specific to significant CaP may represent new and effective drug targets to cure patients already afflicted by this deadly disease. We anticipate this proposal will identify the critical molecular targets with the greatest potential to improve the treatment and potentially cure CaP in men.					
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INTRODUCTION: Narrative that briefly (one paragraph) describes the subject, purpose and scope of the research.

-This brief summary describes our research accomplishments over the past year. My laboratory has completed approximately three months of work on the research proposal since the funding was awarded to UC Davis in August 2008. During this period of time I accepted a new tenure-track faculty position in the department of Molecular Physiology & Biophysics at the University of Iowa in November 2008. Therefore we suspended work on the research proposal while the Department of Defense worked on transferring the grant award to the University of Iowa. After 9 months of deliberations, the grant was finally transferred to the University of Iowa in August 2009. We have now started to buy the necessary reagents to carry out and complete the proposed experiments outlined in the statement of work. We look forward to making significant progress in completing the tasks outlined in the statement of work over the next 12 months.

BODY: This section of the report shall describe the research accomplishments associated with each task outlined in the approved Statement of Work. Data presentation shall be comprehensive in providing a complete record of the research findings for the period of the report. Provide data explaining the relationship of the most recent findings with that of previously reported findings. Appended publications and/or presentations may be substituted for detailed descriptions of methodology but must be referenced in the body of the report. If applicable, for each task outlined in the Statement of Work, reference appended publications and/or presentations for details of result findings and tables and/or figures. The report shall include negative as well as positive findings. Include problems in accomplishing any of the tasks. Statistical tests of significance shall be applied to all data whenever possible. Figures and graphs referenced in the text may be embedded in the text or appended. Figures and graphs can also be referenced in the text and appended to a publication. Recommended changes or future work to better address the research topic may also be included, although changes to the original Statement of Work must be approved by the Army Contracting Officer Representative. This approval must be obtained prior to initiating any change to the original Statement of Work.

-We have no research accomplishments to report during this period. We are acquiring the necessary reagents to complete the proposed research in the statement of work.

KEY RESEARCH ACCOMPLISHMENTS: Bulleted list of key research accomplishments emanating from this research.

-We have no key research accomplishments to list at this time.

REPORTABLE OUTCOMES: Provide a list of reportable outcomes that have resulted from this research to include:

-We have no reportable outcomes for this period of research.

CONCLUSION: Summarize the results to include the importance and/or implications of the completed research and when necessary, recommend changes on future work to better address the problem. A "so what section" which evaluates the knowledge as a scientific or medical product shall also be included in the conclusion of the report.

-We have not reached any conclusions regarding the completed research to date. We look forward to generating high-quality data to complete the proposed studies in specific aim 1 of the statement of work over the next reporting period.

REFERENCES: List all references pertinent to the report using a standard journal format (i.e. format used in *Science*, *Military Medicine*, etc.).

-Not applicable right now.

APPENDICES: Attach all appendices that contain information that supplements, clarifies or supports the text. Examples include original copies of journal articles, reprints of manuscripts and abstracts, a curriculum vitae, patent applications, study questionnaires, and surveys, etc.

Not applicable right now.

SUPPORTING DATA: All figures and/or tables shall include legends and be clearly marked with figure/table numbers.

Not applicable right now.